



UNITED STATES PATENT AND TRADEMARK OFFICE

1
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,738	03/26/2004	Louis C. Haddad	59343US003	9703
32692	7590	09/26/2007	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			VENCI, DAVID J	
PO BOX 33427				
ST. PAUL, MN 55133-3427			ART UNIT	PAPER NUMBER
			1641	
			NOTIFICATION DATE	DELIVERY MODE
			09/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDDocketing@mmm.com
LegalDocketing@mmm.com

Office Action Summary	Application No.	Applicant(s)
	10/810,738	HADDAD ET AL.
	Examiner	Art Unit
	David J. Venci	1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on July 5, 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 16-31 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13, 15, 32 and 33 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) 1-33 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>07/05/07; 07/05/07</u>	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

Art Unit: 1641

DETAILED ACTION

Examiner acknowledges Applicants' reply, filed July 5, 2007. Claims 32 and 33 are added.

Claims 1-33 are pending in this application. Claims 14 and 16-31 are direct to non-elected inventions and were withdrawn from consideration pursuant to 37 CFR 1.142(b) in prior Office Action.

Currently, claims 1-13, 15, 32 and 33 are under examination.

Claim Rejections - 35 USC § 112 – second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1:

Claim 1 is incomplete for omitting essential structural cooperative relationships between elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. Specifically, essential structural cooperative relationships between "portion" and "sites" are not clearly set forth and appear omitted.

The phrase "the hydrophobic portion of the solid phase material" lacks antecedent basis.

Art Unit: 1641

Both instances of the phrase "the blocked solid phase material" lack antecedent bases.

The phrase "the adhered target molecules of the sample" is indefinite. Whether/how "adhered target molecules" remain in the sample is not clear.

In claim 15:

The passive voice phrase "the hydrophobic portion is blocked" is indefinite. Whether the act or process of "blocking" is completed or performed, or merely intended, is not clear. The identity of object(s) and/or step(s), if any, required for performing "blocking" is not clear. Whether the object(s) and/or step(s) required for "blocking" are coextensive with the object(s) and/or step(s) required for "contacting" is not clear.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 9-13, 15, 32 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Arentzen et al. (US 5,491,083).

Arentzen et al. describe a method of reducing non-specific binding of target molecules to a surface (see e.g., col. 1, lines 63-66, observing prior art nonspecific binding; see also, col. 3, lines 48-50, distinguishing Applicants' "good retention"), the method comprising:

Art Unit: 1641

1. providing a sample comprising target molecules (see e.g., Abstract, last sentence, "for such applications as separation and immobilization of biomolecules such as enzymes, carrying out heterogeneous diagnostic assays, and preparation of biosensors");
2. providing a solid phase material comprising a surface that comprises a hydrophobic portion (see e.g., col. 2, lines 24-28, "fluorine resin membrane") and capture sites (see e.g., col. 2, lines 24-28, "hydrophilic on one side");
3. providing a fluorinated nonionic surfactant comprising two or more fluorinated hydrophobic segments and one or more hydrophilic segments (see e.g., col. 5, structure on lines ~38-44; see also, col. 6, lines 18-22, "The sugar can be [...] any polyhydroxy compound") (paraphrasing mine);
4. contacting the solid phase material with the fluorinated nonionic surfactant to block at least a portion of the hydrophobic portion of the solid phase material (see e.g., col. 2, lines 24-28, "fluorine resin membrane which is made hydrophilic on one side");
5. contacting the blocked solid phase material with the sample so that at least a portion of the target molecules of the sample adhere to the capture sites (see e.g., Abstract, last sentence, "for such applications as separation and immobilization of biomolecules such as enzymes, carrying out heterogeneous diagnostic assays, and preparation of biosensors"); and

Response to Arguments

Specification

In prior Office Action, Examiner objected to the specification for various reasons. Specifically, on p. 8, line 5, the pronoun "which"; on p. 27, lines 19-20, the phrase "fabricated as described"; on p. 29, line 1, the phrase "The polypropylene membrane[...] used in Example 3"; throughout Example 4, the phrases "CHES buffer" and "CHES/sulfate buffer"; on p. 29, line 11, the pronoun "They"; on p. 30, line 11, the phrase "was not eluted"; on p. 30, line 13, the pronoun "It"; on p. 31, line 4, the term "treatment"; on p. 8, lines 4-5, the phrase "the nonspecific binding of molecules (e.g., as in a target material) to a solid phase material"; and on p. 8, line 5, the phrase "in a target material" were considered to lack antecedent basis and/or definiteness.

Applicants' amendments, argumentation and/or directed references to the specification are persuasive and overcome these objections.

Claim Rejections - 35 USC § 101

In prior Office Action, claims 1-13 and 15 were rejected under 35 U.S.C. 101 because the disclosed invention was inoperative and therefore lacked utility.

In response, Applicants provide claim amendments and argumentation that appear to have useful support in experiments performed in Examples 1 and 2. Accordingly, this rejection is withdrawn.

Art Unit: 1641

Conclusion

No claims are allowable at this time.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Venci whose telephone number is 571-272-2879. The examiner can normally be reached on 08:00 - 16:30 (EST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

David J Venci
Assistant Examiner
Art Unit 1641

djv


LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600